

**CLAIMS**

1. A method for producing a quartz glass preform for optical fibers by heating and stretching a quartz glass cylinder having an outer diameter (D) using a heating furnace having an upper part and a lower part and being equipped with a carbon-made heating element with an inner diameter (d), characterized by setting the ratio (d/D) to the range of from 1.02 to 1.5, and blowing in an inert gas from the upper part of the heating furnace into the heating element.
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2. A method according to Claim 1, wherein the ratio (d/D) is set to the range of from 1.1 to 1.3.
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3. A method according to Claim 1, wherein the outer diameter (D) of the quartz glass cylinder is at least 190 mm.
4. A method according to Claim 1, wherein the clearance between the heating element and the quartz glass cylinder is established to be from 15 to 25 mm.
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5. A method according to Claim 1, wherein the ratio (D/ID) of the outer diameter (D) to the inner diameter (ID) of the quartz glass cylinder is set to from 2 to 5.
6. A method according to Claim 1, wherein the quartz glass cylinder is a hollow cylinder comprising a core rod which is co-axially inserted in said hollow cylinder without being integrated with it.
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7. A method according to Claim 6, wherein the ratio (D/ID) of the outer diameter (D) to the inner diameter (ID) of the quartz glass hollow cylinder is set to from less than 2 to 5.
8. A method according to Claim 1, wherein the heating furnace is a resistance furnace or an induction furnace.

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9. A method for producing a quartz glass preform for optical fibers, said method comprising:

heating and stretching a quartz glass cylinder having an outer diameter using a heating furnace having an upper part and a lower part and being equipped with a  
5 carbon-made heating element with an inner diameter, the cylinder and the heating element being of dimensions such that a ratio of the inner diameter of said heating element to the outer diameter of said cylinder being in the range of from 1.02 to 1.5, and

blowing in an inert gas from the upper part of the heating furnace into the  
10 heating element.

10. A method according to Claim 9, wherein the ratio 9 is in the range of from 1.1 to 1.3.

11. A method according to Claim 9, wherein the outer diameter of the quartz glass cylinder is at least 190 mm.

15 12. A method according to Claim 9, wherein the heating element and the quartz glass cylinder define a clearance space of from 15 to 25 mm therebetween.

13. A method according to Claim 9, wherein the quartz glass cylinder has an inner diameter such that the ratio of the outer diameter to the inner diameter of the quartz glass cylinder is from 2 to 5.

20 14. A method according to Claim 9, wherein the quartz glass cylinder comprises a hollow cylinder with an inner diameter, and a core rod is co-axially inserted in said hollow cylinder without being integrated therewith.

15. A method according to Claim 14, wherein the ratio of the outer diameter to the inner diameter of the quartz glass hollow cylinder is from 2 to 5.

25 16. A method according to Claim 9, wherein the heating furnace is a resistance furnace or an induction furnace.